

# **EXHIBIT B**



Deposition of:  
**Robert McMeeking , Ph.D.**

*July 6, 2017*

In the Matter of:  
**In Re: Bard IVC Filters Products  
Liability**

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1 BY MS. DALY:

2 Q Uh-huh.

3 A And in other activities, which I cannot  
4 talk about, I've made similar comparisons among  
5 filters.

6 Q But you've said you're not going to rely  
7 in this case on the comparisons you made in the  
8 cases you can't talk about, right?

9 A That's correct.

10 Q All right. So we'll set that aside for a  
11 moment. But you -- you have developed no prototype  
12 making changes to any of Bard's filters that you  
13 think would perform better, correct?

14 MR. O'CONNOR: Form.

15 THE WITNESS: No, I've -- I've developed  
16 no prototype to attempt to -- to achieve that  
17 objective.

18 BY MS. DALY:

19 Q And of course since you don't have a  
20 prototype for that, you've not bench tested such a  
21 prototype to see how it would perform either, true?

22 A That's correct.

23 Q Okay.

24 MR. O'CONNOR: Belated objection to the  
25 form of the question.

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1 BY MS. DALY:

2 Q You talk about the changes to the G2X cap,  
3 and I want to know what your opinion is on the  
4 chamfer design in the G2X compared to the G2.

5 MR. O'CONNOR: You can refer to your  
6 report, too, it's in there.

7 BY MS. DALY:

8 Q Sure.

9 A In my opinion, the chamfer was changed  
10 very little in going from the G2 to the G2X, and  
11 the reason is that although the cap was bead  
12 blasted, the chamfer area was masked during the  
13 bead blasting and as a consequence of that, the  
14 bead blasting would not have broken the sharp  
15 edges, which are the -- the problem that is  
16 associated with the chamfer. And this is contrary  
17 to Dr. Fasching's claim that the bead blasting  
18 would have softened that particular sharp edge.

19 The next point is that after the bead  
20 blasting, there was a process of tumbling the cap  
21 in a bed of ceramic particles, and that would have  
22 removed some material by a process of pol- --  
23 essentially polishing, mechanical polishing, but in  
24 my assessment it would not have removed a great  
25 deal of material and, therefore, would not have

1 changed the shape of the chamfer very much.

2 And as information that's consistent with  
3 that, we can look at Figure -- Figure 187 in  
4 Dr. Fasching's report, which the report dated May  
5 11 of 2017, where it can be seen that there are two  
6 rounded edges at the bottom of the cap; one of them  
7 is very gradual, which is the one on the outside,  
8 and my assessment is that that edge was broken by  
9 the bead blasting; whereas the one on the inside of  
10 the cap adjacent to the limb you can see is much  
11 sharper in the sense that the radius of curvature  
12 is much smaller than the other curved surface.

13 And I did an estimate of the radius of  
14 curvature and I found that the radius of curvature  
15 for that chamfer is about 20 microns. Now, I would  
16 defer to those who measure the -- the radius of  
17 curvature directly in images on the electron  
18 microscope and so on, so I'm not going to say this  
19 is a definitive measure of the radius of curvature,  
20 but it leaves me with the impression that the  
21 radius of curvature is about 20 microns. And the  
22 radius of curvature that was measured by  
23 Dr. Fasching on a Recovery filter quite some time  
24 ago was 15 microns.

25 And so it's my inference that there was

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1 not a big change to the radius of curvature of the  
2 chamfer in the processes that were used in the  
3 manufacture of the G2X. And that, therefore, the  
4 strain concentration which would be associated with  
5 that chamfer was not reduced significantly,  
6 although if some material was removed, it would  
7 have reduced the strain concentration to some  
8 extent.

9 Q Okay. So, first of all, let me start with  
10 that last thing first. You have not done any  
11 specific modeling or FEA to determine what the  
12 change in chamfer that you're willing to say  
13 occurred to this 20 millimeters -- microns,  
14 would -- what that impact would be on fracture  
15 resistance? You have not done any of that work  
16 specifically?

17 A Well, I've -- I've considered the  
18 difference between a radius of curvature of 5  
19 microns and one in which, if you like, the radius  
20 of curvature is very large, but in between -- which  
21 spans the range from a radius of curvature of 5  
22 microns to ones which are much larger. But other  
23 than that, I've not done a specific calculation.

24 But I should point out that the reduction  
25 is proportional to the degree of change of the

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1 radius of curvature, so if you don't change the  
2 radius of the curvature very much, you're not going  
3 to change the strain concentration very much.

4 Q What's the largest curvature that you've  
5 looked at to see how that would impact strain?

6 A You mean what's the largest curvature I've  
7 considered?

8 Q Yeah. I thought you said that you looked  
9 at a range and there was a large one that you  
10 looked at.

11 A Well, infinity would be the answer, which  
12 of course is not --

13 Q Well --

14 A -- not a reasonable answer in the sense  
15 that it's not practical for a filter.

16 Q Did you actually model something on the  
17 order of 40 microns, 50 microns, something like  
18 that?

19 A No, what I modeled was a case where the  
20 chamfer is having no effect on raising the strains  
21 at the -- in the arms where the arms are in contact  
22 with the chamfer.

23 Q Okay.

24 A And that means that the radius of  
25 curvature is -- is just very large.

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1 Q Do you know from any SEM work that either  
2 Dr. Fasching has presented or Dr. Richie has  
3 presented whether the arms of G2Xs ever touch the  
4 chamfer?

5 A Did you say SEM work?

6 Q Yeah.

7 A Well, I have not seen that work  
8 specifically, but as I look at these images it  
9 looks as if there is contact between the chamfer  
10 and the arms. Although, again, I would not claim  
11 that that's a definitive interpretation of the  
12 situation. But there are many images throughout  
13 Dr. Fasching's report and Dr. Richie's reports  
14 where you can see that there seems to be direct  
15 contact between the chamfer and the -- the limb and  
16 that -- that that contact seems to occur in several  
17 of the filters that they looked at.

18 Q How about G2Xs?

19 A This is --

20 Q And just to be clear, are you aware that  
21 they've seen very few G2Xs --

22 A That's --

23 Q I think two.

24 A Yeah, that's what I was going to comment  
25 on, that there's -- there's -- I'm not even sure,



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1 to my recollection, that there's a G2X looked at  
2 in -- in this report or in Dr. Richie's report  
3 other than the exemplar, so there's very little  
4 information to go on in that regard.

5 Q And did you see an exemplar G2X?

6 A I have an exemplar that I have in my  
7 possession.

8 Q Okay. And have you done any bench testing  
9 of that exemplar to see if you can cause wires to  
10 touch the chamfer?

11 A No.

12 MR. O'CONNOR: Form and foundation.

13 THE WITNESS: No.

14 BY MS. DALY:

15 Q Were there any modifications to Bard's  
16 retrievable filters starting with the G2 that did  
17 not go forward into the next model until the  
18 Denali, which you and I know is quite different?

19 MR. O'CONNOR: Form and foundation.

20 THE WITNESS: There -- there may have been  
21 slight changes to the lengths of limbs, but other  
22 than that, I believe all of the modifications went  
23 forward until the Meridian.

24 MR. O'CONNOR: Are you done with the  
25 Fasching report?

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1 THE WITNESS: Yes.

2 MR. O'CONNOR: Keep your report in front  
3 of you and refer to it if you need to, please.

4 BY MS. DALY:

5 Q Now, you have not examined an exemplar  
6 Meridian, correct?

7 A Yes, I have a Meridian in my possession.

8 Q Okay. When did you get that?

9 A Oh, a week or two ago.

10 Q Okay. Because I noticed it was not in  
11 your report at that time --

12 A Right. Right.

13 Q -- you did not have the Meridian. So from  
14 what source did you get a Meridian?

15 A I asked for it from the plaintiffs'  
16 counsel.

17 Q And what about a Denali, do you have that?

18 A I have a Denali.

19 Q When did you get that?

20 A About two weeks ago as well.

21 Q Do you know why you didn't get it before  
22 two weeks ago?

23 MR. O'CONNOR: Form.

24 THE WITNESS: Because I didn't ask for it.

25 BY MS. DALY: